

# ***San Joaquin Valley Unified Air Pollution Control District***

**PERMIT UNIT:** C-1555-11-1

**EXPIRATION DATE:** 11/30/2002

**EQUIPMENT DESCRIPTION:**

34.8 MMBTU/HR SUPERIOR SEMINOLE MODEL 6C-4000 BOILER EQUIPPED WITH LO NOX FLUE GAS RECIRCULATION AND DESIGNED TO OPERATE ON NATURAL GAS WITH NO 2 FUEL OIL AS BACKUP. TITLE V OPERATING PERMIT MODIFICATION

## **Permit Unit Requirements**

1. Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO<sub>2</sub>, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3]. Federally Enforceable Through Title V Permit
2. Unit shall be fired on PUC-regulated natural gas or on diesel fuel not exceeding 0.5% sulfur by weight. [District Rule 4301, 5.2.1 and County Rules 404 (Madera), 406 (Fresno), and 407 (the six remaining SJVUAPCD counties); District Rule 4801; and 40 CFR 60.42c(d)] Federally Enforceable Through Title V Permit
3. Nitrogen oxide (NO<sub>x</sub>) emissions shall not exceed (averaged over 60 minutes): A. 0.036 lb NO<sub>x</sub>/MMBtu or 30 ppmv when operated on gaseous fuel fired boilers and steam generators. B. 0.052 lb NO<sub>x</sub>/MMBtu or 40 ppmv when operated on liquid fuel fired boilers and steam generators. C. Lower NO<sub>x</sub> limit of the two fuels being fired simultaneously for dual fired units. [District Rule 4351, 5.2.2 and 5.4 and /or District Rule 4305, 5.1 and the subsumed District Rule 4301, County Rule 405 (Madera ) and County Rule 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin)]. Federally Enforceable Through Title V Permit
4. The owner/operator shall perform a visible emissions check using EPA Method 9 upon initial firing with fuel oil. Additional checks shall be performed using EPA Method 9 during any year in which fuel oil firing exceeds 200 hours. [District Rule 2520, 9.4.2; District Rule 4101] Federally Enforceable Through Title V Permit
5. Operator shall ensure that all required source testing conforms to the compliance testing procedures described in District Rule 1081. [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
6. If the unit is fired on noncertified diesel fuel, then the sulfur content of the fuel being fired in the unit shall be determined using ASTM method D 1072-80, D 3031-81, D 4084-82 or D 3246-81. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. The operator shall limit the opacity of any discharged gases to 20% opacity; any period or periods of exceedance shall not aggregate to more than three (3) minutes in any one hour. Method 9 shall be used for determining the opacity of stack emissions. [40 CFR 60.43c (c)(d) and 60.45c(a)(7); District Rule 4101] Federally Enforceable Through Title V Permit
8. Operator shall record all dates on which the unit is fired on any fuel other than PUC-regulated natural gas. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

9. If the unit is fired on noncertified diesel fuel, the sulfur content of each fuel source shall be tested weekly, except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a quarterly test indicates non-compliance, weekly testing shall resume until compliance is shown for 8 consecutive weeks. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

10. Operator shall maintain copies of fuel invoices and supplier certifications. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

11. Operator shall maintain all records for at least five years and conform to the recordkeeping requirements described in District Rule 2520. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

12. NOX requirements shall not apply during natural gas curtailments to units burning liquid fuel that are normally fired with gaseous fuel. This exemption is limited to 336 cumulative hours of operation per calendar year excluding equipment testing not to exceed 48 hours per calendar year. Any unit so exempted shall monitor and record for each unit the cumulative annual hours of operation on each liquid during curtailment and during testing. [District Rule 4305, 4.2 & 6.1.1 and /or District Rule 4351, 4.2 & 6.1.2] Federally Enforceable Through Title V Permit

13. Operator shall provide that fuel hhv be certified by third party fuel supplier or determined by: ASTM D 240-87 or D 2382-88 for liquid hydrocarbon fuels; ASTM D 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

14. Operator shall perform annual source testing for NOX (ppmv) according to EPA Method 7E (or ARB Method 100), stack gas oxygen by EPA Method 3 or 3A (or ARB Method 100), NOX emission rate (heat input basis) by EPA Method 19, stack gas velocities by EPA Method 2, and stack gas moisture content by EPA Method 4. Gaseous fired units shall test not less than once every 36 months, if compliance is shown for 2 consecutive years. If a test shows noncompliance with NOX requirements, the source shall return to annual source testing until compliance is again shown for two consecutive years. Test results submitted to the District from individual units that are identical to a group of units, in terms of rated capacity, operational conditions, fuel used, and control method, may satisfy these requirements. [District Rule 4305, 6.2.2, 6.2.4-7 and 4351, 6.2.2 & 6.2.4-7, & 6.3] Federally Enforceable Through Title V Permit

15. Nitrogen oxide (NOx) emission concentrations in ppmv referenced at dry stack emissions shall be corrected to 3% O<sub>2</sub> and lb/MMBtu rates shall be calculated as lb NO<sub>2</sub>/MMBtu of heat input (hhv). [District Rule 4305, 8.1 and/or 4351, 8.1] Federally Enforceable Through Title V Permit

16. Operator of units simultaneously firing gaseous and liquid fuels shall install and maintain totalizing mass or volumetric flow rate meters in each fuel line to each unit. Volumetric flow rate meters shall be installed in conjunction with temperature and pressure measurement devices. [District Rule 4305, 5.3.1 and District Rule 4351, 5.6.1] Federally Enforceable Through Title V Permit

17. Operator shall monitor and record for each unit the hhv and cumulative annual use of each fuel. [District Rule 4305, 6.1.1 and District Rule 4351, 6.1.1] Federally Enforceable Through Title V Permit

18. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rule 405 (Madera), Rule 408 (Fresno), Rule 408.2 (Merced) and 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin); Rule 402(Madera) and 404 (all seven remaining counties in the San Joaquin Valley); SJVUAPCD Rule 4301. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

19. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rule 405 (Madera), 408 and 409 (Kern), and 408 (all six remaining counties in the San Joaquin Valley); Rule 404 (Madera) 406 (Fresno), and 407 (all six remaining counties in the San

Joaquin Valley); SJVUAPCD Rule 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

20. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rule 4201 and 4301. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

21. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

22. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rule 4305, Sec. 4.2, 5.1.1, 5.1.2, 6.1.1, 6.2 (excepting 6.2.3), 6.3, 8.1 and Rule 4351 Sec 4.2, 5.2.2, 6.1.1, 6.2 (excepting 6.2.3), 8.1. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

23. The requirements of 40 CFR 72.6(b) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

24. Except as otherwise necessary for equipment testing and preparation, the primary fuel burned in the boiler shall be natural gas with #2 fuel oil used only in the event of curtailment of natural gas supply which is beyond the control of the owner. [District NSR Rule] Federally Enforceable Through Title V Permit

25. The #2 fuel oil sulfur content shall not exceed 0.05 percent by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

26. In the event #2 fuel oil must be used, no more than 5,239 gallons per day may be burned. [District NSR Rule] Federally Enforceable Through Title V Permit

27. In the event #2 fuel oil is burned the applicant shall notify the District within 24 hours of firing with #2 fuel oil. [District NSR Rule] Federally Enforceable Through Title V Permit

28. Further testing of the equipment as necessary for the determination of compliance with the rule and regulations of the District may be required at any time. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Emissions from the boiler shall not exceed 162.4 lb NOx/day, 15.0 lb CO/day, 1.2 lb VOC/day, nor 40.7 lb SOx/day. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Records of daily fuel oil usage and monthly natural gas usage shall be kept and maintained on the premises for at least five years. [District NSR Rule; District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit